

II. RESPONSE TO OFFICE ACTION

Claims 45-49 are withdrawn from further consideration. The Office Action rejected Claims 1, 3, 10, 11, 16-19, 29-31, 38, 41, 42, 43 and 44. Reconsideration of the claims in light of the above amendments and the following remarks is respectfully requested. The Examiner's comments from the Office Action are reprinted below in 10-point bold type and are followed by Assignee's remarks.

A. CLAIM REJECTIONS 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless -

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 3, 16-19, 29-31 and 38 are rejected under 35 U.S.C. 102(b) as being anticipated by Cherry et al., U.S. 3,375,874.

Regarding claims 1, 29 and 38, Cherry et al. discloses a hollow mandrel (312) having an inner diameter; a packing element (27) arranged about the mandrel; and a valve (75) functionally associated with the mandrel for selectively controlling flow of fluids through the passage, the valve (75) adapted (336, 330) to engage (332) the mandrel such that rotation between the mandrel and the valve is precluded when the valve is in a closed position (col. 12, lines 63-72). Cherry et al. disclose setting the packing element (27) by the application of a force (col. 6, lines 25-30), selectively controlling a flow of fluid through the apparatus by the valve (col. 6, lines 45-70); and destructively (connection of 41 to 36) removing the apparatus including the valve out of the well. As to claims 3, 19 and 30, Cherry et al. discloses the tab (330) selectively engaging the mandrel (312 at 68) when the valve (75) is in the closed position. As to claims 16-18 and 31, Cherry et al. discloses a central member (335) is adapted to seal the passage and allow fluid flow when released, and hold (fig 9, 335 and 312) a valve (75) open during run-in.

A person shall be entitled to a patent unless -

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351 (a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21 (2) of such treaty in the English language.

Claims 41 and 42 are rejected under 35 U.S.C. 102(e) as being anticipated by Hernandez et al., U.S. 2004/0000407 A 1.

Regarding claims 41 and 42, Hernandez et al. discloses a valve (14), a mandrel (16); a hinge (24) pivotally attaching the flapper to the mandrel, a tab (26) engaging a recession (31), wherein the flapper is biased in a closed position by a spring [0019].

Without acquiescing to the characterization of the prior art or application of the prior art to the claims found in the Office Action, claims 41 and 42 have been cancelled herein. Assignee respectfully reserves the right to pursue these claims in continuing application(s) at a later date.

B. CLAIM REJECTIONS - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 10 and 11 are rejected under 35 U.S.C. 103(a) as being unpatentable over Cherry et al., U.S. 3,375,874. As to claims 10 and 11, Cherry et al. discloses all the claimed limitations except for the flapper comprising structural grade plastic. However it would have been obvious to arrange for the flapper disclosed by Cherry et al. to include plastic, since the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960). Claims 43 and 44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hernandez et al., U.S. 2004/0000407 A 1. As to claims 43 and 44, Hernandez et al. discloses all the claimed limitations except for the flapper comprising structural grade plastic. However it would have been obvious to arrange for the flapper disclosed by Hernandez et al. to include plastic, since the selection of a known material based upon its suitability for the intended use is a design consideration within the skill of the art. In re Leshin, 227 F.2d 197, 125 USPQ 416 (CCPA 1960).

In an effort to move this case along, and without acquiescing to the characterization of the prior art or application of the prior art to the claims found in the Office Action, Assignee has amended the claims as follows:

Claim 1 has been amended to include a novel limitation of claim 2 (i.e. "a flapper with a non-circular cross section"), while claim 2 has been amended to more particularly point out the inner diameter of the mandrel being non-circular. Claim 4 (previously objected to) has been written in independent form to include the limitations of original claims 1 and intervening claim 3. Claims 10 and 11 now depend from claims believed to be allowable.

Claims 16-19 are cancelled. Claim 29 has been amended to include novel limitations believed not found in the prior art of record. Further, claim 39 (previously objected to) has been rewritten in independent form, to include the limitations of claim 38 from which it depended. Claims 41-44 have been cancelled. Assignee respectfully reserves the right to pursue the claims cancelled herein in continuation application(s) at a later date. In light of these above amendments, it is believed that all pending claims are in condition for allowance.

C. ALLOWABLE SUBJECT MATTER

Claims 2,4-9, 12-15,20-28,32-37,39 and 40 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not disclose or suggest all the claimed subject matter including a non-circular valve. The prior art of record does not disclose or suggest all the claimed subject matter including a hinge pivotally connecting the flapper to the mandrel. The prior art of record does not disclose or suggest all the claimed subject matter including a central member within the passage. The prior art of record does not disclose or suggest all the claimed subject matter including the mandrel having a non-circular cross-section and the packer having a non-circular inner surface precluding relative rotation. The prior art of record does not disclose or suggest all the claimed subject matter including milling the apparatus out of the well, the flapper of the apparatus being comprised of non-metallic material to facilitate the milling.

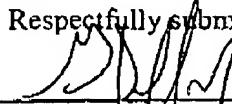
In light of the above amendments, it is believed that each of these claims is in condition for allowance.

D. CONCLUSION

The Examiner is invited to contact the undersigned attorney at 713.787.1478 with any questions, comments or suggestions relating to the referenced patent application.

Respectfully submitted,

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Gregg A. Duffey
Reg. No. 42,501
HOWREY LLP
1111 Louisiana, 25th Floor
Houston, Texas 77002-5242
Tel. 713.787.1478
Fax 713.787.1440
Attorney for Assignee
BJ SERVICES COMPANY